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PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 43 (Safety glazing)

Revision 1-Addendum 1

Transmitted by the Experts from Belgium and the United Kingdom

<u>Note</u>: The text reproduced below was prepared by the experts from Belgium and the United Kingdom in order to update their proposal. It is based on the text of a document distributed without a symbol (informal document No. 12) during the eightieth GRSG session (TRANS/WP.29/GRSG/59, para. 42).

<u>Note</u>: This document is distributed to the Experts on General Safety Provisions only.

A. PROPOSAL

paragraph 2.24., amend to read:

"

The manufacturer

The manufacturer's type designation

. "

Paragraph 5.5.2., amend to read:

"5.5.2. V in the case of glazing which has a regular light transmittance of less than 70 per cent, as measured according to paragraph 9.1.2. of annex 3. In the case of glazing with a regular light transmittance less than [30 per cent], this symbol shall be followed by the additional symbol [< 30 %]."

Paragraph 5.5.7., amend to read:

".... plastic double glazed unit. In addition, the appropriate application will be signified by:

- /A for forward facing panels;
- /B for side, rear and roof glazing;
- /C in locations where there is little or no chance of head impact.

For plastic glazing which has been submitted to the abrasion resistance tests described in annex 3, paragraph 4, the following markings shall also be applied as appropriate:

- [/L] for panes with a light scatter not exceeding 2 per cent after 1000 cycles on the outer surface and 4 per cent after 100 cycles on the inner surface (see annex 16 paragraph 6.1.3.1.)
- [/M] $\underline{3}$ / for panes with a light scatter not exceeding 10 per cent after 500 cycles on the outer surface and 4 per cent after 100 cycles on the inner surface (see annex 16 paragraph 6.1.3.2.)

^{3/} Mark not required if pane is marked "/L" as indicated above."

Annex 2A, amend the title to read (including the addition of footnote 1:

"Annex 2A

ARRANGEMENT OF APPROVAL MARKS FOR COMPONENTS $\underline{1}/$ (see paragraph 5.5. of this Regulation)"

In addition, add, after the approval mark example for safety glazing having a regular light transmittance < 70 per cent, a new example of approval marks, to read:

"Safety glazing having a regular light transmittance < 30 per cent

$$\frac{\frac{1}{a^{3}}}{\uparrow} \quad V < 30\%$$

$$a \int \frac{a}{2} \int \frac{E4}{\uparrow} d3 R - 002439$$

a=8 mm min.

The above approval mark affixed to a glass pane other than a safety glazing with a regular light transmittance of less than 30 per cent as determined by the test described in annex 3, paragraph 9.1, shows that the component concerned has been approved in the Netherlands (E 4) pursuant to Regulation No. 43 in its original form under approval No. 002439. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No. 43."

The approval mark example for rigid plastic glazings other than windscreens, amend to read:

"Rigid plastic glazing

$$\frac{\frac{1}{a^{\frac{3}{2}}} \quad VIII/A/L}{E_4} = \frac{E_4}{\frac{a^{\frac{3}{2}}}{1}} = 43 R - 002439$$

a=8 mm min.

The above approval mark affixed to a rigid plastic glazing pane for forward facing panels shows that the component concerned has been approved in the Netherlands (E 4) pursuant to Regulation No. 43 under approval No. 002439. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No. 43 in its original form. The pane has been abrasion tested so that the outer surface meets the 2 per cent light scatter/1000 cycle requirement and the inner surface meets the 4 per cent light scatter/100 cycle requirement."

Annex 3,

Paragraph 9.1.4., amend to read:

"9.4.1. The regular light transmittance shall be measured according to paragraph 9.1.2. of this annex and the result shall be recorded.

In the case of a windscreen, it shall not be less than 75 per cent."

Paragraphs 9.1.4.1. and 9.1.4.2., should be deleted:

Annexes 14 and 16,

Insert a new paragraph 6.1.3.3., to read:

"6.1.3.3. For sun roofs, the abrasion test is not required."

Annex 21,

Paragraph 3.1., amend to read:

"3.1. Safety glazing shall be fitted in such "

Paragraph 3.2., amend to read:

"3.2. Safety glazing shall bear the"

Paragraphs 4.1. to 4.1.3., amend to read:

- "4.1. Windscreens
- 4.1.1. The regular light transmittance shall not be less than 75 per cent;
- 4.1.2. The windscreen must be type-approved for the vehicle type for which it is intended to be fitted;
- 4.1.3. The windscreen must be correctly fitted with reference to the vehicle driver's 'R' point;"

Insert a new paragraph 4.1.3., to read:

["4.1.4. Vehicles having a maximum design speed greater than 40 km/h may not be fitted with a toughened windscreen."]

 $[\]underline{1}$ / In the case of plastic panes, additional symbols must be combined within the approval marking."

Paragraph 4.2.1.2., amend to read:

" in paragraphs 5.5.5. or 5.5.7. of this Regulation;"

Insert a new paragraph 4.2.3.2., to read:

"4.2.3.2. In the case of plastic panes, they shall bear one of the additional symbols, as defined in paragraph 5.5.5., 5.5.6. or 5.5.7. of this Regulation.

However, when the vehicle is intended for conveying passengers, the additional symbol C/L and C/M are not allowed at locations where there is a risk of head impact."

Paragraphs 4.2.3.2.1. and 4.2.3.3., should be deleted

Paragraph 4.2.4., amend to read:

"

(e) sun roofs and glazing located in the roof of a vehicle."

Paragraph 4.3.1., amend to read:

Paragraph 4.3.3., amend to read:

" symbols /M or /L, as defined in paragraphs 5.5.5. or 5.5.7. of this Regulation;" $\[\]$

* * *

B. JUSTIFICATION

General.

Most of the amendments suggested were originally proposed during the seventyninth session of the GRSG, by OICA (informal document No. 15), the delegation of Japan (informal document No. 4) and by CLEPA (informal document No. 13).

Re. paragraph 5.5.2.

- (i) In the context of annex 3, the wording "measured" has been preferred to the one "determined"
- (ii) The sign % defines accurately the regular light transmittance symbol to be used, which is in line with the example of marking shown in annex 2A

Re. paragraph 5.5.7.

(i) Additional symbols relating to the impact behaviour of double glazed units are missing in the current Revision 1 - Amendment 1 to Regulation No. 43, dated 25 February 2000. They are re-introduced as a correction

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- (ii) The text relating to the abrasion symbols has been redrafted on the basis of the one of the paragraph 5.5.5. and the reference to the relevant annex has been added.
- (iii) the wording "panes" replaces the wording "windows"

Re. annex 2A

- (i) The wording "safety glazing" is preferred to the wording "glass panes other than windscreens", giving, as such, a broader scope to the marking; hence, plastic panes will also be covered by this paragraph.
- (ii) It is redundant to make a link to windscreens, hence the text may be simplified. Regarding rigid plastic glazing, an additional exchange of opinions is needed, therefore, brackets have been added.
- (iii) The addition of a footnote is needed to underline the fact that the markings V, A/L and the other ones must be combined in the case of plastic panes. Therefore, the addition of examples of markings will not be necessary.

Annex 3,

Re paragraph 9.1.4.

- (i) The currents sub-paragraphs could interfere with the installation prescriptions of annex 21 and must be deleted.
- (ii) A simple reference to the collection of the test results is added.

Annexes 14 and 16,

Re. paragraph 6.1.3.3.

(i) As wished by the Industry and the delegation of Japan, sun roofs will be exempted from abrasion testing. The argument is that no field of vision has to be ensured by means of sun roofs; therefore, it is rational to exempt them from any abrasion provisions.

Annex 21,

Re. paragraph 3.1.

(i) See item relating to the annex 2A above for justification regarding the change in the wording. Moreover, windscreens and safety glazing have been combined in a single wording.

Re. paragraph 4.1.

- (i) A new item is added. It is preferable that all relevant prescriptions relating to the RLT would be gathered in annex 21
- (ii) Items 4.1.2. and 4.1.3. are inverted to respect a more logical sequence;

Re. paragraphs 4.2.1.2. ,4.2.2.3., 4.3.1. and 4.3.3. (Annex 21)

(i) As stated above, the double glazed plastic panes must be covered by the newly reworked item 5.5.7. It is therefore necessary to add the relevant reference in those paragraphs

Re. paragraph 4.2.2.3. - second indent (Annex 21)

- (i) The requirements have been strengthened for plastic rear glazing installed on convertibles. However, the additional symbol B has to be used as a minimum (additional symbol A may off course be allowed) to make an equivalency to the requirements for the rear glass panes, as requested by industry.
- (ii) Specifically restricted to convertibles, it is also mentioned that the rear pane may be constituted by a flexible plastic pane.

Re. paragraph 4.2.3.2.

- (i) The addition of sun roofs in the list of exemptions makes possible the deletion of the previous paragraph 4.2.3.2.1.
- (ii) For vehicles as 4x4 with soft top, flexible plastic panes may be accepted behind the B pillar; relevant reference to 5.5.6. has therefore been added.
- (iii) A new item has been added to prevent the use of plastic panes marked /C at locations situated where the head of the occupants could hit the lateral glazing. At other locations, /C is allowed.

Pref. paragraph 4.2.4.

Sun roofs and glazing located in the roof of the vehicles (coaches for example) may be exempted from the general provisions regarding the regular light transmittance.